REMARKS

This Amendment is in response to the Office Action of October 1, 2007.in which the Examiner rejected the claims.

The Examiner made certain technical objections to the claims. These have been addressed in the amendments to the claims. In the claims, certain dependencies have been reinserted as having been inadvertently deleted in the prior response. In addition, the words 'scalpel' and 'voltage' have been reinserted in claim 4.

It is noted that in a prior action the examiner allowed claims 1 and 2 and rejected claims 4-14. In a prior communication with the Examiner, it was learned that she considered the art in this application and that of a related application to be inconsistent.

Applicant believes that the current action should not be deemed Final.

Applicant's representative prepared an amendment based on the art in the other application. However, the Examiner did not formally provide a new action. Applicant's prior response included arguments regarding Pozzato and Flachenecker et al. However the Examiner has cited new art.

The Examiner's rejection of the claims is respectfully traversed for the reasons set forth below.

Applicant asserts that it has been well known that the coagulation of blood occurs at around 70-75 C. However, the present invention proposes to limit the energy supplied by the scalpel so that only the coagulation zone reaches the coagulation temperature. The cells very close to the cells along the incision are not warmed to 70 degrees C, but are heated to a lower temperature of around 50 degrees C. Thus those cells are not destroyed. In other words, the invention limits damage (i.e. death to cells) only to those cells directly interested in coagulation. This means that the invention supplies the scalpel with energy just sufficient to coagulate the interested cells, but not others adjacent thereto, thereby avoiding damage to the adjacent cells.

Schulze does not teach how to avoid damage during the coagulation process in the tissues adjacent the coagulation.

Pozatto '122 teaches the necessity of increasing the frequency of a radio knife up to about 4 MHz to avoid necrotic effects during the cutting process as set forth at col. 1, lines 20-23. The present invention regulates the amplitude of the energy supplied to the cells involved in the coagulation causing light heating because the energy transmitted to the cells is different from the bonding energy of the molecules forming the cells. In this way the

heating of cells is around 65- 70 degrees C but not higher, so as to obtain the effect of denaturation of the fibrinogen into fibrin, but not necrosis of the surrounding cells. See for example paragraph [0027] of the specification.

Applicants assert that none of the above identified references teach or suggest the important features of the invention. In particular the references do not show or suggest a control circuit for an electronic scalpel which employs amplitude regulation of the power delivered to the manipulator. These amplitude regulation limits the power delivered to the cells so that those cells near the coagulation site are not raised above 75 degrees C and are thus not destroyed. These references also do not teach the regulation of the amplitude of the resulting wave to thereby regulate the power delivered to the tissue whereby destruction of the tissue is avoided. In addition the references do not show how the energy supplied to the manipulator results in a temperature of between about 50 and 75 degree C resulting in the denaturation of fibrinogen and its transformation into fibrin.

Applicant has discovered how to regulate the power to an electronic scalpel whereby the tissue is effectively cut without damage. In other words, the incised tissue is cut, but the tissue along the margins of the incision is not destroyed. As a result, there is better performance of the scalpel and the tissue is in better condition for healing after surgery.

The references do not teach these features. Accordingly, it is believed that the claims are in a condition for allowance, and such a determination is earnestly solicited.

Claims 1 and 4 have been amended to incorporate therein the subject matter of cancelled claims 2 and 6 respectively Accordingly, it is believed that the amendment does not present any new issues for consideration by the Examiner. Therefore it is believed that entry of the amendment is proper, even if the Examiner determines that the finality of the present action is proper.

With respect to the double patenting rejection, Applicant shall file a Terminal Disclaimer upon receipt of an allowance of the claims.

The Commissioner is authorized to charge the any fees that may be required to Deposit Account 504147 or to credit any overpayment thereto. The undersigned is authorized to charge said deposit account.

Respectfully submitted,
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